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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,742	11/15/2001	Ralf Koemle	24810	7461

7590 02/03/2003

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EXAMINER

HOLLINGTON, JERMELE M

ART UNIT PAPER NUMBER

2829

DATE MAILED: 02/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/987,742	KOERNLE ET AL.	
	Examiner	Art Unit	
	Jermele M. Hollington	2829	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Applicant's Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☒ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: residual current I, on page 4, line 3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because there are no labeled representation shown in boxes of Figures 1 and 2 as required under 37 CFR 1.83(a). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a HART® interface [claim 2] must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

Art Unit: 2829

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

4. The disclosure is objected to because of the following informalities: 1) the application as no heading such as TITLE OF THE INVENTION, BACKGROUND OF THE INVENTION, BRIEF SUMMARY OF THE INVENTION, BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S) and DETAILED DESCRIPTION OF THE INVENTION as described above 2) on page 3, line 8 that says "Fig. 1 shows a block diagram of a first embodiment of the invention" should be deleted since it is a duplicant of line 6 on page 3. Appropriate correction is required.

*Claim Objections*

5. Claim 3 is objected to because of the following informalities: in line 3, the phrase “the drain” should be changed to --a drain-- to avoid a lack of antecedent basis in the claim.

Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 2-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, it is not clear what is representing a “HART® interface.” It is not clear of this interface includes a voltage longitudinal controller and a current limiting resistor.

For examination, the examiner is not given patentable weight towards “HART® interface” until further explanation is given of what all it involves.

Regarding claim 3, it is not clear what “a pole” means. It is not clear if the pole means the same as a first connection line. Also since claim 3 depends off of claim 1, it is not clear in the claim how “...the supply voltage source (U) is connected to an input two-wire sensor (S) via a HART® resistor (RH), a drain source path of a field effect transistor (T1) and the current-limiting resistor (R1)...” when in claim 1 it states that “...a two-wire sensor (S), which is connected to a supply voltage source (U) via a first connection line (V1) in which a voltage longitudinal controller (SR) is positioned...” On page 3, lines 9-18, it describes the connection between the two-wire sensor and the supply voltage source. However, claim 3 does not provide

Art Unit: 2829

further limitation relationships of how it relates to claim 1. For instance, claim 3 provides HART® resistor (RH) and the drain source path of a field effect transistor. It is not clear as claimed if these items are connected to or located inside a voltage longitudinal controller (SR). Further it is not clear as claimed how transistor (T2) is related to the voltage longitudinal controller of claim 1.

For examination purposes, the examiner will not provided a prior art rejection until the applicants have distinctly claimed the subject matter which applicants regards as the invention. Since claims 4-5 depend off of claim 3, they are also rejected for the above reasons.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Walker (5081411).

Regarding claim 1, Walker discloses a circuit configuration [see Fig. 2] for voltage supply of a two-wire sensor (332), which is connected to a supply voltage source (300) via a first connection line [shown but numbered in the figure 2] in which a voltage longitudinal controller (full wave bridge rectifier 304) is positioned, and a second connection line [shown but not numbered in figure 2], wherein the controller (304) output is connected to the second connection line via at least one limiting diode (314), and wherein a current-limiting resistor (316) is positioned in one of the two connection lines between the two-wire sensor (332) and the limiting diode (314), characterized in that the controller (304) output is connected to the second

Art Unit: 2829

connection line via a series circuit comprising two limiting diodes (314 and 326) and that the joint node of the two limiting diodes (314 and 326) is connected to the control input of the voltage longitudinal controller (304).

Regarding claim 2, Walker discloses a two-wire sensor (332) and a resistor (302) positioned in one of the two connection lines [see Fig. 2].

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Matsumoto et al (5142235), Zaretsky (5786644), Kirkpatrick, II et al (6118260) and Blossfeld (6437581) disclose a method and apparatus for a tow-wire sensor device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (703) 305-1653. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (703) 308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Jermele M. Hollington  
Examiner  
Art Unit 2829

  
JMH

January 13, 2003

  
VINH P. NGUYEN  
PRIMARY EXAMINER  
GROUP 2829  
01/13/03